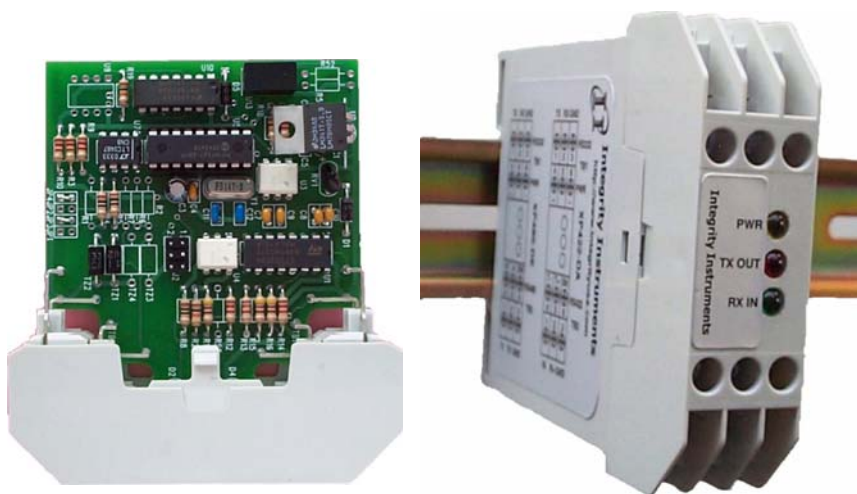


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**XP422-DA
ISOLATED XP422-DI
35mm DIN rail mount
RS-232 to RS422
Converter**

Integrity Instruments XP422-DA/I User Manual

Performance Characteristics	
Operating Temperature Range	-40°C to +85°C (-40F to +185F)
DC input voltage min. (+V)	7.5 Vdc
DC input voltage maximum. (+V)	24 Vdc
DC input current nominal (+V) XP422-DA	45 ma
DC input current nominal (+V) XP422-DI	90 ma
DC input current max. (+V)	250 ma
ESD static discharge (A/B)	1500 V
Baud Rate maximum	115.2 Kbps
Baud Rate minimum	600 bps
Number of RS-422 nodes	Point to Point (SEE NOTE)
Maximum cable length	4000 feet +
Termination resistance	120 ohms
Isolation voltage (XP422-DI ONLY)	3,000 volts

NOTE:

RS-422 is point to point, that is point A to point B only. RS-422 multi-drop is really RS-485 4 wire.

LED Operation

The **XP422-DA** and **XP422-DI** provides a power status and signal LEDs to aid in cabling problems and general operation. Since the signal LEDs are powered only when data is present, they may be illuminated for somewhat brief periods.

POWER YELLOW LED : Power to unit when on
SIGNAL RED LED : RS-232 transmitting when on
SIGNAL GREEN LED : RS-422 receiving when on

Power Supply

The **XP422-DA** and **XP422-DI** requires an external power supply for proper operation. We suggest a 9 Vdc 400 ma power supply. Power must be in the voltage range 7.5 Vdc to 24.0 Vdc.

TERMINATION

The **XP422-DA** and **XP422-DI** is internally terminated between **T-** and **T+** with a 120 ohm resistor, and between **R-** and **R+** with a 120 ohm resistor. See the accompanying schematic to the right.

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PINOUTS:

TB1

- RS-232 Tx transmit (output)
- RS-232 Rx receive (input)
- RS-232 Ground
- Power Plus
- Power Minus

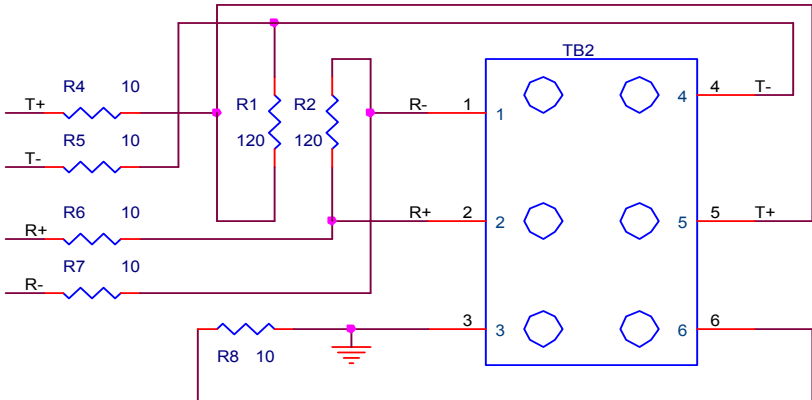
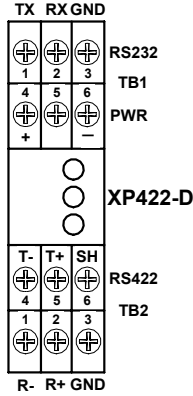
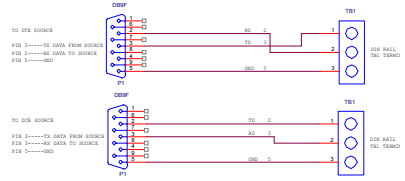
TB2

- RS-422 R- Signal
- RS-422 R+ Signal
- RS-422 GND
- RS-422 T- Signal
- RS-422 T+ Signal
- RS-422 Shield

- Pin 1
- Pin 2
- Pin 3
- Pin 4
- Pin 6

- Pin 1
- Pin 2
- Pin 3
- Pin 4
- Pin 5
- Pin 6

DB9CST Schematic



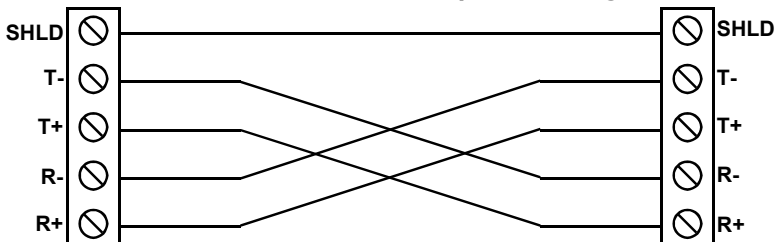
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DTE CONNECTIONS	
DB9	DB25
RX PIN 2	RX PIN 3
TX PIN 3	TX PIN 2
GND PIN 5	GND PIN 7
DCE CONNECTIONS	
RX PIN 3	RX PIN 2
TX PIN 2	TX PIN 3
GND PIN 5	GND PIN 7

RS-422 Cabling

The **XP422-DA** and **XP422-DI** are designed to operate in a point to point configuration. In a full-duplex configuration a separate pair of data lines are used for the transmit data, and the receive data. The connection for the transmit and receive wiring, as well as the power wiring is shown in the diagram below.

XP422-DA and XP422-DI full-duplex cable diagram



Cabling Notes:

- 1) Gnd and Shld are connected internally within the unit thru a 10 ohm resistor.
- 2) Cable termination is important for long distance and high-speed applications
- 3) Suggested cable: 24 awg stranded twisted pair with shield for cable runs in excess of 200 feet. See also Belden cable #9841 and #9463.
- 4) Note that the transmit and receive wires are cross coupled.

WARRANTY

Integrity Instruments warranties all products against defective workmanship and components for the life of the unit. Integrity Instruments agrees to repair or replace, at it's sole discretion, a defective product if returned to Integrity Instruments with proof of purchase. Products that have been mis-used, improperly applied, or subject to adverse operating conditions fall beyond the realm of defective workmanship and are not covered by this warranty.

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